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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/542,884	04/04/2000	Masataka Hamada	32577-20169.00	5975

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MORRISON & FOERSTER LLP
1650 TYSONS BOULEVARD
SUITE 300
MCLEAN, VA 22102

EXAMINER

VO, TUNG T

ART UNIT	PAPER NUMBER
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2613

DATE MAILED: 11/28/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/542,884

Applicant(s)

HAMADA, MASATAKA

Examiner

Tung T. Vo

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 September 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
- a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Response to Arguments

1. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over prompt Fujiwara et al. (US 6,346,949) in view of Lu et al (US 6,252,623 B1).

Re claims 1, 4, and 8, Fujiwara discloses a camera for getting information upon three dimensional shape, comprising: an image taking device (5 of fig. 1) for taking an image of an object within a region (P1-PK of fig. 1) to be photographed; a projector (50 of fig. 1) for projecting a slit light on the region, and a monitor (1 of fig. 1) for displaying the image of the object which the image taking device takes (MX of fig. 3), in which the monitor has a memory (30 of fig. 1) for storing the image of the object the image taking device takes when the projector does not project the pattern of the region (MX of fig. 3); wherein the image taking device takes a projection slit light which is formed on the object within the region by the slit light that the projector projects (GX of fig. 3), and wherein the monitor displays the image, stored in the

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memory of the object, instead of the image of the object the image taking device takes with the projector projecting the slit light on the region (col. 3, lines 1-11). Furthermore, Fujiwara teaches the display or monitor (20 of figs. 1 and 3) displays the stored image of the object from the memory (30 of fig. 1; col. 3, lines 48-58) based upon the controller (10 of fig. 1) incorporate to the input device (40 of fig. 1).

It is noted that Fujiwara does not specifically teach a light which spreads on the region to be photographed and has a predetermined pattern within the spread area as claimed.

However, Lu teaches a light which spreads on the region to be photographed and has a predetermined pattern within the spread area (38, 14, 36, 34 of fig. 2, col. 6, lines 28-42). Therefore, taking the combined teachings of Fujiwara and Lu together as a whole it would have been obvious to one of ordinary skill in the art to incorporate the predetermined pattern light (38, 14, 36, 34 of fig. 2, col. 6, lines 28-42) of Lu into the camera of Fujiwara for the same purpose of illuminating the predetermined pattern light on the object. Doing so would provide the camera system, which is suitable for use on live or moving objects, inexpensive to manufacture and does not require a complex mathematical computations to determine three dimensional object as suggested by Lu (col. 2, lines 45-57).

Re claims 2-3, 5-7, 11-13, Fujiwara further teaches wherein the pattern light is not a uniform light and has a distribution of illuminate (Visible light of fig. 1), and the projection slit pattern which is formed on the object within the region by the pattern light comprises at least one stripe which is slit light; wherein the slit pattern light comprises a colored light (color image) where the color is defined in a range (col. 3, lines 59-67), and wherein the slit pattern which is

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formed on the object within the region by the pattern light comprises a color part (col. 4, lines 1-14).

Re claim 9, Fujiwara further teaches a second memory, memory devices such as hard disk (col. 3, lines 15-16) for storing the image of the object the image taking part takes, wherein the second memory output the image of the object, thus stored to the first memory which is system memory in CPU 1 as shown in the figure 1 of Fujiwara, successively.

Re claim 10, Fujiwara further teaches the second memory is prohibited from being outputted to the first memory (col. 3, lines 20-27); when image taking part which is two dimensional of the object, takes the image of the object in the state in which the projector projects the light on the points (P1-Pk of fig. 1) of the object (3 of fig. 1) with the predetermined pattern (col. 3, lines 45-58).

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

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however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tung T. Vo whose telephone number is (703) 308-5874. The examiner can normally be reached on 6:30 AM - 3:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chris. Kelley can be reached on (703) 305-4856. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9314.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.



**TUNG T. VO
PATENT EXAMINER**

T.Vo

Tung T. Vo
Examiner
Art Unit 2613